From:
 Anderson, Carmen

 To:
 Lam, Shelly

 Subject:
 RE: Methane Venting

**Date:** Wednesday, June 11, 2014 7:01:23 AM

Attachments: image001.png

RE Michigan Plaza - Passive Venting Options.msg

I believe this is a result of Sarah's email on Tuesday which I have attached.

## **Carmen Anderson**

Senior Environmental Manager Remediation Services Branch Office of Land Quality Indiana Department of Environmental Management 100 N. Senate Avenue, IGCN N1101 Indianapolis, IN 46204-2551 canderson@idem.in.gov (317) 234-2513

From: Lam, Shelly [mailto:lam.shelly@epa.gov] Sent: Wednesday, June 11, 2014 7:57 AM

**To:** Anderson, Carmen

Subject: Fw: Methane Venting

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Pam Thevenow < <a href="mailto:PThevenow@MarionHealth.org">PThevenow@MarionHealth.org</a>>

Sent: Wednesday, June 11, 2014 7:54 AM

To: Lam, Shelly

Cc: Adam Rickert; Jeff Larmore Subject: FW: Methane Venting

Shelly, FYI on the emails below. We've talked about the methane issue off and on since last November—do you have any opinion about this? I am not sure if an IDEM air permit is required—what do you think?

Pam Thevenow

Administrator

Marion County Public Health Department

Water Quality & Hazardous Materials Management

3901 Meadows Drive

2<sup>nd</sup> Floor

Indianapolis, IN 46205

317.221.2266 (office)

317.491-5679 (mobile)

pthevenow@marionhealth.org

From: Vicki Powell

Sent: Tuesday, June 10, 2014 4:17 PM

To: Pam Thevenow

Subject: FW: Methane Venting

Your thoughts?

Vicki Powell

Office Coordinator

Marion County Public Health Department

Dept of Water Quality & Hazardous Materials Management

vpowell@marionhealth.org

Office: 317-221-2266 Fax: 317-221-2288

From: Gordon, Courtney [mailto:Courtney.Gordon@indy.gov]

Sent: Tuesday, June 10, 2014 4:10 PM

To: Vicki Powell

Subject: FW: Methane Venting

Hi Vicki,

Please read the email below, per our conversation and let me know your thoughts and/or if any action is required. Thanks,

## Courtney Gordon

Battalion Chief-Fire Marshal Indianapolis Fire Department Department of Public Safety

300 E. Fall Creek Pkwy N. Drive Suite 500

Indianapolis, Indiana 46205

Phone: 317.327.6097 Fax: 317.327.6072

courtney.gordon@indy.gov

Fire-Police-Homeland Security-Animal Care and Control-EMS-PSC

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**From:** Pervine, Fred J.

Sent: Tuesday, June 10, 2014 2:34 PM

To: Gordon, Courtney
Cc: 'rjohnson@dhs.in.gov'
Subject: FW: Methane Venting

Chief Gordon, please follow-up on this request, I think we need to touch base with the Health Dept. and any other entity that needs to have input. Thanks!

From: Johnson, Robert [mailto:RJohnson@dhs.IN.gov]

**Sent:** Tuesday, June 10, 2014 2:29 PM **To:** Pervine, Fred J.; Gordon, Courtney

Subject: Methane Venting

To whom it may concern @ IFD, We received this email @ the state IDHS from Mr. Breting about methane venting. The state Fire Marshal's Office position is that this is a local issue or even a health or IDEM issue. With that being said, I wanted to push this email forward to local fire having jurisdiction for review. If we can help or questions just let me know.

## Thanks,

I work for Mundell and Associates Inc. We are an environmental consulting firm in town. I wanted to check with the State Fire Marshal office to see if you have any approved methods for passively venting methane from the subsurface (without the need of an active engineered system).

We are monitoring the remediation of subsurface soil and groundwater impacts at a couple of properties in town (3800-3801 West Michigan Street) that was associated with a dry cleaner chemical release. The properties in question include an apartment complex and strip mall. Our work is under the regulatory oversight of IDEM.

Methane has been detected at elevated levels in the deep soil above the water table during the course of treating the impacts. Some of the methane is probably natural or related to a nearby sewer, but a component is likely a byproduct associated with our treatment of the impacts. We are monitoring the soil gas levels and when deemed appropriate we pull vapors to off-gas any elevated pockets being detected in our wells. We also have sub-slab mitigation systems in operation in nearby buildings to remove any vapors that collect in the subslab areas.

We are looking to see if we can utilize a passive venting methods in exterior locations of the properties to vent off an methane that is being generated in the ground that would be acceptable to the fire marshal.

The simplest approach we could think of was to simply place vent caps on our wells to allow the vapors in the ground to off-gas at the ground surface (our wells are flush mounts at the ground) and not be allowed to accumulate in the subsurface. Alternatively, we might consider some sort of wind

turbine setup that keeps airflow moving from the well head out of the ground. Seeing what we can do within the rules of your department.

Thanks in advance for your time in discussing this matter. Email or phone is fine (I may run out shortly for an errand but will be back by 1pm).

Sincerely, Mark

Mark E. Breting, L.P.G. Senior Project Geologist Mundell & Associates, Inc. 110 South Downey Avenue Indianapolis, Indiana 46219

P: (317) 630-9060 F: (317) 630-9065 Website: <a href="mailto:www.mundellassociates.com">www.mundellassociates.com</a> Email: <a href="mailto:mbreting@mundellassociates.com">mbreting@mundellassociates.com</a>

Robert S. Johnson Assistant State Fire Marshal Indiana Department of Homeland Security Division of Fire and Building Safety (317)233-0195 rjohnson@dhs.in.gov www.in.gov/dhs



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From: Mark Breting [MBRETING@mundellassociates.com]

To: FINLEY, SARAH [SFINLEY@idem.IN.gov]; Anderson, Carmen [CAnderson@idem.IN.gov]

CC:

Subject: RE: Michigan Plaza - Passive Venting Options

Sent: 10 Jun 2014 13:05:41 +0000

Sarah:

Much appreciated! Thanks for the feedback.

Sincerely, Mark

From: FINLEY, SARAH [mailto:SFINLEY@idem.IN.gov]

Sent: Tuesday, June 10, 2014 9:01 AM To: Mark Breting; Anderson, Carmen

Subject: RE: Michigan Plaza - Passive Venting Options

Hey Mark,

Carmen is still catching up on some things, so I'm pinch hitting today. I had a quick discussion with the solid waste geologists about methane systems. I have a few insights to share:

The primary concern with methane venting is potential collection of the gas in confined spaces like storage areas and sumps near the vents. So it would be best to keep vents away from buildings or enclosed cubbies where discharged methane might collect.

Since you have a large ROW area, a horizontal, gravel filled trenches maybe with low (or even in ground?) wind turbines may be a good option. This would also protect from traffic damage.

The remediation side of IDEM OLQ does not appear to have specific design criteria. As far as I can determine, it would be considered an engineered remedial system, and the same considerations apply as to a SVE or PRB system, for example.

If you need further design specifications, I would suggest contacting the Permit Engineering Section. The Section Chief is Shyamala Raman 232-8855.

I hope this helps.

Sarah Finley Johanson LPG # 2158 Geological Services (317)234-0997

From: Mark Breting [mailto:MBRETING@mundellassociates.com]

Sent: Monday, June 09, 2014 12:39 PM To: Anderson, Carmen; FINLEY, SARAH

Subject: Michigan Plaza - Passive Venting Options

Hi Carmen and Sarah:

We are researching potential long-term passive methane venting options at the site. Would one of you be able to provide guidance on acceptable practices that IDEM would consider or has approved? I can call whomever is the best resource to speak with at IDEM.

We are also going to contact the state fire marshal's office and any pertinent city agencies.

Thanks, Mark

Mark E. Breting, L.P.G. Senior Project Geologist Mundell & Associates, Inc. 110 South Downey Avenue Indianapolis, Indiana 46219

P: (317) 630-9060 F: (317) 630-9065 Website: www.mundellassociates.com Email: mbreting@mundellassociates.com